

EPO - DG 1

27 06. 2005

- 16 -

(44)

TS 9512 PCT

C L A I M S

1. Sulphur pellet comprising an H₂S-suppressant, comprising in the range of from 60 to 100 wt% elemental sulphur, based on the total weight of the pellet.
2. Sulphur pellet according to claim 1, comprising in
5 the range of from 75 to 100 wt% elemental sulphur, preferably from 90 to 100 wt% of elemental sulphur, based on the total weight of the pellet.
3. Sulphur pellet according to claim 1 or 2, wherein the H₂S-suppressant is one or more compounds selected from
10 the class of free radical inhibitors and redox catalysts.
4. Sulphur pellet according to any one of claims 1 to 3, wherein the H₂S-suppressant is selected from the group of iodine, amine compounds, copper salts, copper oxides, iron salts, iron oxides, cobalt salts and cobalt oxides.
- 15 5. Sulphur pellet according to claim 4, wherein the iron salts are iron chloride compounds, preferably selected from the group of ferric chloride, hydrated ferric chloride, ferrous chloride and hydrated ferrous chloride.
6. Sulphur pellet according to any one of claims 1 to 5,
20 comprising H₂S-suppressant in amounts in the range of from 0.02% to 10% (w/w), preferably from 0.05% and 6.5%, more preferably between 0.1% to 2.0%, based on the sulphur pellet.
7. A process for the manufacture of sulphur pellets
25 comprising at least one H₂S-suppressant, the process comprising the steps of:
(a) mixing elemental sulphur, one or more H₂S-suppressants and optionally a filler in a mixing unit to obtain a mixture;

BEST AVAILABLE COPY

- 17 -

(b) shaping and/or pelletising the mixture obtained in step (a) in a pelletising unit to obtain H₂S-suppressant-comprising sulphur pellets.

8. A process as claimed in claim 7, wherein the
5 elemental sulphur is introduced as molten sulphur, the temperature of the mixture preferably being kept above 113 °C.

9. A process as claimed in claim 7 or 8, wherein the
10 H₂S-suppressant is one or more compounds selected from the class of free radical inhibitors and redox catalysts.

10. A process to manufacture a sulphur-comprising asphalt paving mixture, the process comprising the steps of:

(i) preheating bitumen at a temperature of between 140 and 180 °C;

15 (ii) preheating aggregate at a temperature of between 140 and 180 °C;

(iii) mixing the hot bitumen with the hot aggregate in a mixing unit,

wherein sulphur pellets comprising H₂S-suppressant

20 according to any one of claims 1 to 6 are added in at least one of the steps (i), (ii) or (iii), preferably in step (iii).

F:\OA\TS9512PCT

BEST AVAILABLE COPY